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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,888	07/21/2000	Steven T. Barham	528-008605-US (PAR)	4779

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EXAMINER

PHU, PHUONG M

ART UNIT PAPER NUMBER

2631

DATE MAILED: 09/26/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

A

Office Action Summary

Application No.

09/620,888

Applicant(s)

BARHAM ET AL.

Examiner

Phuong Phu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. Figure 3 is required to be labeled with label "Figure 3".

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 15-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 15 recites the limitation "changing to the second coded signal when the PD exceeds about 97 %" on line 4-5. This limitation is not disclosed in the specification of the instant application.

Claims, depended on claim 15, are therefore also rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felix et al (6,233,231) in view of Warren et al (5,946,344).

As per claim 1, see Felix et al, figures 1, 4 and 6, and col. 3, line 9 to col. 4, line 50, col. 6, line 43 to col. 7, line 8 and col. 8, lines 14-61. Felix et al discloses a method and associated system wherein the system (figure 1) comprises a base unit (100) and the remote unit (113), the base unit including a first transceiver (see figure 4) and a first code generator (inherently included in means (427) of the base unit, and the remote unit, which must be configured similar as the base unit, inherently including a second transceiver and a second code generator; and wherein the method/system comprises

acquiring step/means (inherently included in a remote unit (113)) (see figure 1) for acquiring a received signal being transmitted from a base unit (100);

correlating step/means (inherently included in the remote unit (113)) for correlating the received signal with a first OVSF code sequence provided by the second code generator, which is corresponding to the rate of data that is conveyed in the received signal and performed in step (601) shown in figure 6, in order to detect and recover data from the received signal;

transmitting step/means, in response to an interference detection being performed in step (603) shown in figure 6, for transmitting an acknowledgement from the remote unit to the base station (see col. 8, lines 20-26) wherein in Felix et al, it would be obvious or inherent that the interference detection would be derived from the result of the correlating in the remote unit in order to check how the interference prevents the remote unit from the data detection after the correlating; or namely, the transmitting step/means is performed in response to the correlating; and

changing step/means ((102, 101) (see figure 1) and (427) (see figure 4)) in the base unit, in response to the interference detection, namely, to the correlating, for changing the first code

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generator to a second OVSF code sequence which is corresponding to step ((611) or (607) shown in figure 6).

Felix et al is silent about a synchronizing step/means for achieving a timing lock in response to the correlating with the first OVSF sequence code.

Warren et al discloses a synchronizing step/means (26) in response to the result of means (22) correlating a received data with a code sequence in a CDMA receiver in order to acquire a synchronization of the CDMA receiver with the received data for clock and data recovery. On the other hand, since the Felix et al remote unit inherently needs to synchronize with its received signal in order to have data recovered, it would have been obvious for one skilled in the art when building Felix et al invention to implement a synchronizing step/means, as taught by Warren et al, in the remote unit, in such a way that the synchronization step/means would be performed and carried out in response to the result of correlating the received signal with first OVSF sequence code so that the data could be recovered.

As per claims 2 and 3, in Felix et al in view of Warren et al, as applied to claim 1, the first and second OVSF sequence codes are PN codes (see Felix et al, figure 2).

As per claim 4, as applied above to claim 1, Felix et al in view of Warren et al discloses a tracking step/means (26) in the remote unit (see Warren et al, figure 1) for tracking the first OVSF sequence code; a changing step/means (102, 101, 427) in the base unit (see Felix et al, figures 1 and 4) for changing the first OVSF sequence code to the second OVSF sequence code; and a changing step/means (inherently included in the remote unit) for changing the first code OVSF sequence to the second OVSF sequence when the base unit changes the first OVSF sequence code to the second OVSF sequence code so that the remote unit can de-spread by

correlating its received signal with the second OVSF sequence code to recover the data which has been lately spread with the second OVSF sequence and transmitted from the base unit.

As per claim 5, in Felix et al in view of Warren et al, Felix et al discloses that the steps of changing the first OVSF code sequence to the second OVSF code sequence in the base unit and the remote unit, respectively occur on the occurrence of step (603) shown in figure 6.

As per claim 9, as applied in the below *Claim Rejections - 35 USC § 102* to claim 6, Felix et al discloses the invention except that he fails to teach a synchronization detector. However, as applied above to claims 1 and 4, Felix et al in view of Warren et al teaches a synchronization detector (26) (see Warren et al, figure 1). Further more, Felix et al in view of Warren et al second transceiver comprises a receiver (inherently included for receiving signals transmitted from the base unit) (see Felix et al, figure 1), and a second control circuit (inherently included for controlling the changing code sequences of the second code generator) wherein it would be obvious for the one skilled in the art that at least for the synchronization purpose, the receiver, the second control circuit and the synchronization detector should be coupled to each other in the remote unit.

As per claim 10, Felix et al in view of Warren et al first transceiver comprises a transmitter (see Felix et al, figure 4); and a first control circuit (CONTROLLER) wherein the first code generator in means (427) is coupled between the transmitter and the first control circuit.

6. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felix et al.

As per claim 15, as applied in the below *Claim Rejections - 35 USC § 102* to claim 13, Felix et al discloses the invention except that Felix et al does not disclose that the changing step

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occurs when the interference detection exceed 97%. Felix et al discloses that the changing step occurs when the interference detection exceed a threshold. It would have been obvious that dependent on his desire or system requirement, one skilled in the art within his skills, when building Felix et al invention for his own system, could select a mathematical choice to calculate the interference and set the threshold as desired or required.

As per claim 16, as applied above to claims 1 and 4, and as applied in the below ***Claim Rejections - 35 USC § 102*** to claim 13, Felix et al discloses step of changing a first codec (inherently included in the receiver of the remote unit) to the second OVSF code sequence, and step of changing a second codec (inherently included in the transmitter of the base unit) to a second OVSF code sequence after waiting for the time that the base unit receives the acknowledgement transmitted from the remote unit about information of the interference detection.

As per claim 17, Felix et al does not suggest whether the steps of changing the first and second codecs are carried out contemporaneously. However, for a promptly corresponding between the base unit and the remote unit, it would have been obvious that one skilled in the art, within his skills, to implement the communication between the base unit and remote unit so that the steps of changing the first and second codecs would be carried out contemporaneously so that after receiving the second coded signal transmitted from the base station, the remote unit could promptly recover data from the received second coded signal.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 6-8 and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Felix et al.

As per claim 6, as applied above to claim 1, Felix et al discloses the first transceiver, the first code generator the second transceiver and the second code transceiver.

Claims 7 and 8 are rejected with reasons set forth for claims 2 and 3.

As per claims 11 and 12, in Felix et al, the first and second code generator are code generators which each inherently can generate at least two different code sequences.

As per claim 13, as applied above to claims 1, 6, 9 and 10, Felix et al discloses a transmitting step performed in the transmitter of the base unit for transmitting a first coded signal being coded with the first OVSF code sequence; a receiving step performed in the receiver of the remote unit for receiving the first coded signal. Felix et al further discloses a calculating step (603) (see Felix et al, figure 6) for calculating a probable quantity of detection “interference detection” of the first coded signal; and a changing step (611, 607)) (see Felix et al, figure 6) for

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changing the first coded signal to a second coded signal being coded with the second OVSF code sequence, responsive to the interference detection.

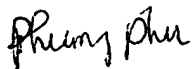
Claim 14 is rejected with reasons set forth for claims 2 and 3.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 703-308-0158. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 703-306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.



Phuong Phu
08/21/03

Phuong Phu
Primary Examiner
Art Unit 2631

**PHUONG PHU
PRIMARY EXAMINER**